

IN THE SPECIFICATION

Please amend the specification as follows:

Replace the paragraph on page 1, between lines 1-3 of the specification with the following:

The invention relates to a method of irradiating a layer ~~according to the introductory portion of claim 1~~ and to a device for irradiating a layer ~~according to the introductory portion of claim 7~~.

Delete the paragraph on page 3, between lines 31-33 of the specification.

Delete the paragraph on page 4, on line 21 of the specification.

Replace the paragraph spanning pages 6-7, between page 6, line 25, and page 7, line 3 of the specification with the following:

A mirror 45 in line with an optical axis 49 of the lens system

9 is also secured to the first traveller 37. In operation, the radiation beam 7 generated by the radiation source 33 follows a radiation beam path 47 extending parallel to the X-direction, and the radiation beam 7 is deflected by the mirror 45 in a direction parallel to the optical axis 49 of the lens system 9. The lens system 9 can be displaced in the direction of its optical axis 49 by means of a focus actuator 51, over comparatively small distances with respect to the first traveller-~~3~~ 37, so that the radiation beam 7 can be focused on the photosensitive layer 5. The table 27 with the substrate 5 is rotated about the axis of rotation 29 at a comparatively high speed by means of the first motor 31, and the lens system 9 is displaced parallel to the X-direction by means of the second motor 41 at a comparatively low speed, so that the scanning spot 11 where the radiation beam 7 hits the layer follows a spiral-shaped track over the photosensitive layer 5, leaving a trail of irradiated and non-irradiated elements extending in accordance with this spiral-shaped track.

Replace the paragraph spanning pages 8-9, between page 8, line 31, and page 9, line 3 of the specification with the following:

The recess 92 may for instance be positioned and of such dimensions, so that only a portion of the radiation passes through the recess. However, for a particularly effective protection of liquid 91 across the whole radiation beam, it is preferred that the recess 92 has a rim portion ~~93-94~~ closest to the layer 5, which extends around the radiation 7 irradiating the spot 11.

Accordingly, the portion of the interspace 53 in the recess 92 in which liquid 91 is shielded from being entrained extends throughout the whole cross-section of the radiation beam.

Replace the paragraph spanning pages 10-11, between page 10, line 32, and page 11, line 4 of the specification with the following:

The projection lithography apparatus according to Fig. 6 includes a wafer support 12 and a projector ~~13-113~~ having a lens assembly 14 above the wafer support 12. In Fig. 6, the wafer support 12 carries a wafer 15 on which a plurality of areas 16 are intended to be irradiated by a beam projecting an image or partial image of a mask or reticle 17 in a scanner 18 operatively connected to the projector-~~13~~ 113. The support table is moveable in X and Y

direction along spindles 19, 20 driven by spindle drives 21, 22. The spindle drives 21, 22 and the scanner 18 are connected to a control unit 23.

Replace the paragraph on page 12, between lines 17-19 of the specification with the following:

In Fig. 3, the dotted-circle designated by reference numeral 94 indicates the perimeter of the portion of the interspace 53 between the lens 59 and the layer 5 through which the radiation beam 7 passes.

Replace the paragraph on page 12, between lines 20-30 of the specification with the following:

For supplying liquid 91 to the interspace 53 between the lens 59 and the layer 5, a liquid supply conduit 67 extends through the housing 61 and leads to an outflow opening 90. According to the present example, the outflow opening 90 has the form of a canal structure in a surface 54, which canal structure 90-67 is open towards the layer 5, for distributing supplied liquid 91 longitudinally along the canal 90-67 and dispensing distributed

liquid towards the layer 5. In operation, the liquid 91 is distributed by the canal structure 90-67 longitudinally along that canal structure and the liquid 91 is dispensed from the canal structure 90-67 towards the layer 5. This results in a relatively wide liquid trace 95 and full immersion of the portion 94 of the interspace 53 through which the radiation beam 7 passes, even if the direction of movement of the lens system 9 and the layer 5 relative to each other parallel to the plane of the layer 5 is changed substantially.

Replace the paragraph spanning pages 12-13, between page 12, line 31, and page 13, line 2 of the specification with the following:

The canal 90-67 can have various forms. In the embodiment shown in Figs. 2 and 3, the canal is formed such that the outflow opening 90 is located outside the radiation beam 7 and extends around the portion 94 of the interspace 53 through which the radiation 7 irradiates the spot 11. The cross 96 indicates the centre, seen in a direction parallel to the optical axis of the lens system 9, of the total cross-sectional passage area of the

outflow opening 90.

Replace the paragraph on page 13, between lines 3-6 of the specification with the following:

The liquid 91 is preferably supplied at a pressure drop over the liquid between the canal structure 90-67 and the environment that is just sufficient to keep portion of the interspace 53 through which the radiation passes reliably immersed. Thus, the amount of water fed to the surface is kept to a minimum.

Replace the paragraph on page 13, between lines 7-14 of the specification with the following:

Furthermore, when the liquid 91 is dispensed via a canal shaped outflow opening 90, the smallest thickness of the interspace 153 (in this example the distance between the layer 5 and the surface 54 of the wall portion 65) may be larger, without causing an undue risk of disrupting the immersion of the portion 94 of the interspace through which the radiation passes. Therefore, when the liquid is dispensed from a canal-shaped outflow opening 90, the displacement structure 27, 31-39, 83 and the lens system 9 are

preferably positioned and dimensioned for maintaining the smallest thickness of the interspace 53 in a range between 3 and 500 μm .

Replace the paragraph on page 13, between lines 15-23 of the specification with the following:

The flow rate with which the liquid 91 is supplied is preferably such that it can be reliably ensured that a laminar flow with an essentially linear velocity profile and preferably a homogeneous Couette flow is present in the interspace 53. Such a flow exerts a substantially constant force on the wall 65 in which the canal 90-67 is provided and on the side 63 of the lens 59 nearest to the layer 5. As a result, the liquid present in the interspace 53 exerts substantially no variable liquid forces on the lens system 9. Such varying liquid forces would lead to undesirable vibrations of the lens system 9 and hence to focusing errors and positioning errors of the radiation beam 7 on the photosensitive layer 5. The flow is preferably free of air inclusions, so that the radiation beam 7 is not disturbed.